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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/532,005 | 12/28/2005 | Yoshio Takeuchi | 2005_0651A | 3799 |
| 513 7590 10/16/2007 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021 | | | EXAMINER STRIEB, MICHAEL A | |
| | | | ART UNIT 4177 | PAPER NUMBER |
| | | | MAIL DATE 10/16/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/532,005

Applicant(s)

TAKEUCHI ET AL.

Examiner

Michael A. Strieb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/19/2005
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 2A, elements (X1) and (X2); Figure 2B, elements (C1), (C4), (X1), and (X2); Figure 3, element (S9); Figure 10, elements (S30), (S32) through (S34), and (S37) through (S43). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 1 is objected to because of the following informalities: in line 8, it is recommended applicant replace "san" with "an". In line 30, it is recommended applicant replace "an next instruction" with "a next instruction". Appropriate correction is required.

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Claim 9 is objected to because of the following informalities: in line 5, it is recommended applicant replace "san" with "an". In line 22, it is recommended applicant replace "an next instruction" with "a next instruction". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, and 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kitagawa (US 5,835,798), hereafter referred to as Kitagawa '798.

Regarding **claim 1**, Kitagawa '798 discloses an imaging apparatus for generating still picture data by receiving an optical signal of a subject, comprising an imaging element that generates a still picture by exposing with an optical signal of the subject (column 7, lines 54-55); a plurality of imaging lenses that collect the optical signal of the subject and focus said image on the imaging apparatus (column 4, line 65); a correction lens that is movable on a plane vertical to an optical axis of the imaging lenses so as to correct image blurring formed on the imaging element (column 5, lines 1-4); a measuring section that measures shake of the imaging apparatus (column 5, line 8); an instruction section that instructs start of recording a still picture generated by the imaging element (column 7, lines 52-55); and a lens controller that selectively performs a center stop control and a lens correction control, the center stop control controlling the

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correction lens position so as to stop the correction lens at an optical axis center position which is a position of the correction lens at which an optical axis of the imaging lenses coincides with an optical axis of the correction lens (column 7, lines 25-29), the lens correction control controlling the correction lens position so as to correct blurring of the image formed on the imaging element on the basis of the measuring result of the measuring section (column 7, lines 50-51), wherein the lens controller performs the center stop control until receiving an instruction for start of recording from the instruction section, and performs the lens correction control after the start of exposure of the imaging apparatus (column 7, lines 25-29; 50-51), and the lens controller returns the correction lens to the optical axis center position before receiving a next instruction for start of the next recording from the instruction section after completion of the exposure to the imaging element, and then performs the center stop control on the correction lens (column 8, lines 13-16).

Regarding **claim 3**, Kitagawa '798 discloses the invention as applied to claim 1 above. Further, Kitagawa discloses wherein the lens controller starts the lens correction control earlier than start time of exposure of imaging element by time necessary for controlling the correction lens stably (column 7, lines 50-55).

Regarding **claim 8**, Kitagawa '798 discloses all the limitations of the invention as applied to claim 1 above.

Regarding **claim 9**, Kitagawa '798 discloses all the limitations of the invention as applied to claim 1 above.

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (US 5,835,798) in view of Kitagawa et al (09-080,500), hereafter referred to as Kitagawa et al '500.

Regarding **claim 4**, Kitagawa '798 discloses the invention as applied to claim 1 above.

Kitagawa '798 does not disclose a reference value updating function for updating a reference value used for judging the measuring result of the measuring section, keeping the reference value updating function inactivate while controlling the lens correction.

Kitagawa et al '500 discloses a reference value updating function for updating a reference value used for judging the measuring result of the measuring section. For the reference value updating function to remain inactive while controlling the lens correction would be obvious to one having ordinary skill in the art.

At the time of the invention, it would have been obvious to a person having ordinary skill in the art to combine Kitagawa et al '500 with Kitagawa '798. The motivation for doing so would have been to provide a baseline on which to judge the measurements provided by the shake sensor.

Therefore, it would have been obvious to combine Kitagawa et al '500 with Kitagawa '798 to obtain the invention as disclosed in claim 4.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (US 5,835,798) in view of Takeuchi et al (US 5,978,600).

Regarding **claim 5**, Kitagawa '798 discloses the invention as applied to claim 1 above.

Kitagawa '798 does not disclose an integrating section that integrates the result of the measuring section, wherein the lens controller calculates a virtual position of the correction lens on the basis of the output of the integrating section, and performs the lens correction control according to the virtual position, and the integrating section adjusts a gain on the integration of the result of the measuring section according to the virtual position of the correction lens calculated by the lens controller.

Takeuchi et al disclose an integrating section that integrates the result of the measuring section, wherein the lens controller calculates a virtual position of the correction lens on the basis of the output of the integrating section (column 3, lines 59-67), and performs the lens correction according to the virtual position, and the integrating section adjusts a gain on the integration of the result of the measuring section according to the virtual position of the correction lens calculated by the lens controller (column 4, lines 6-13).

At the time of the invention, it would have been obvious to a person having ordinary skill in the art to combine Takeuchi et al with Kitagawa '798. The motivation for

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doing so would have been to maintain an adequate position for the corrective lens throughout the process.

Therefore, it would have been obvious to combine Takeuchi et al with Kitagawa '798 to obtain the invention as disclosed in claim 5.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (US 5,835,798) in view of Noguchi et al (JP 06-148731).

Regarding **claim 5**, Kitagawa '798 discloses the invention as applied to claim 1 above.

Kitagawa '798 does not disclose an integrating section that integrates the result of the measuring section, wherein the lens controller calculates a virtual position of the correction lens on the basis of the output of the integrating section, and performs the lens correction control according to the virtual position, and the integrating section adjusts a gain on the integration of the result of the measuring section according to the virtual position of the correction lens calculated by the lens controller.

Noguchi et al disclose an integrating section that integrates the result of the measuring section, wherein the lens controller calculates a virtual position of the correction lens on the basis of the output of the integrating section, and performs the lens correction according to the virtual position, and the integrating section adjusts a gain on the integration of the result of the measuring section according to the virtual position of the correction lens calculated by the lens controller (paragraphs 3-4).

At the time of the invention, it would have been obvious to a person having ordinary skill in the art to combine Noguchi et al with Kitagawa '798. The motivation for doing so would have been to maintain an adequate position for the corrective lens throughout the process.

Therefore, it would have been obvious to combine Noguchi et al with Kitagawa '798 to obtain the invention as disclosed in claim 5.

9. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa (US 5,835,798) in view of Vasey et al (US 4,970,540).

Regarding **claim 6**, Kitagawa discloses the invention as applied to claim 1 above.

Kitagawa does not disclose wherein when a region of shake frequency of the imaging apparatus is smaller than a predetermined value, the integrating section adjusts the gain so that the gain is constant when the virtual position of the correction lens is within a predetermined range from the optical axis center position, and that the gain decreases along with the distance from the optical axis center position when the virtual position of the correction lens is outside of the predetermined range.

Vasey et al disclose wherein when a region of shake frequency of the imaging apparatus is smaller than a predetermined value, the integrating section adjusts the gain so that the gain is constant when the virtual position of the correction lens is within a predetermined range from the optical axis center position, and that the gain decreases along with the distance from the optical axis center position when the virtual position of

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the correction lens is outside of the predetermined range (column 8, lines 44-46; Figure 13).

At the time of the invention, it would have been obvious to a person having ordinary skill in the art to combine Vasey et al with Kitagawa. The motivation for doing so would have been to prevent the correction lens from striking against the limit of the possible displacement zone.

Therefore, it would have been obvious to combine Vasey et al with Kitagawa to obtain the invention as disclosed in claim 6.

Regarding **claim 7**, Kitagawa in combination with Vasey et al disclose the invention as applied to claim 6 above.

Further, Vasey et al disclose wherein the integrating section adjusts the gain so that the gain increases along with increase of the shake frequency when the shake frequency of the imaging apparatus is smaller than the predetermined value, and that the gain is constant when the shake frequency of the imaging apparatus is more than the predetermined value (column 8, lines 58-68).

Allowable Subject Matter

10. Claim 2 is objected to as being dependent upon a rejected base claim, but appear to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Regarding **claim 2**, Kitagawa '798 discloses the return of the correction lens to the optical axis center position, but does not specify

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that this is done before completion of transfer of a still picture from the imaging element to the image processor.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Wakabayashi et al (US 5,978,599) "Camera having vibration correcting function"

Tsukamoto et al (US 6,225,613 B1) "Optical device provided with correcting function for trembling of focused image with a stop of power supply to the device"

Miyamoto et al (US 6,332,060 B1) "Camera with vibration compensation device varying the compensating action in accordance with the focal length of a lens and the distance to the subject"

Onozuka et al (US 5,157,433) "Method and apparatus for controlling continuous photography"

12. Any response to this office action should be faxed to (571) 273-8300 or mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand - delivered responses should be brought to:

Customer Service Window
Randolph Building
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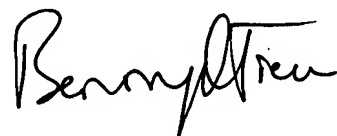
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Strieb whose telephone number is 571-270-3528. The examiner can normally be reached on Monday-Friday 8am-5pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on (571) 272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAS


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